



PROGRESS REPORT NO. 111

TO: Laura Buelow, U.S. Environmental Protection Agency (EPA) – via Email
Matt Wilkening, EPA – via Email
Dustan Bott, EPA – via Email

FROM: Kris McCaig – Teck American Incorporated (TAI)

DATE: October 9, 2015

FILE NO: 01-773180-000

RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study
(RI/FS) - Progress Report No. 111 Month Ending September 2015

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Phase 2 Sediment Study - Field sampling activities were completed on October 24, 2013. Validated field sediment and porewater chemistry data have been reviewed and approved by EPA.

Short-term bioassay tests (i.e., 10-day *Chironomus dilutes* and 28-day *Hyalella azteca*) were completed for all batches on April 24, 2014. Bioassay test data and analytical chemistry data for porewater and sediment samples collected during the short term bioassay tests have been loaded into the project database; validated chemistry data have been reviewed by EPA and TAI is in receipt of several letters from EPA's detailing the review. TAI responded to EPA's review comments on March 3, 2015.

Long-term bioassay tests (i.e., *Chironomus dilutes* and 42-day *Hyalella azteca*) were completed for all batches on May 4, 2015. The bioassay laboratory electronic data deliverables are complete and are currently undergoing quality assurance review by TAI and EPA. Chemistry analyses on sediment and porewater samples collected during the long-term tests were completed and validated data made available for EPA's quality assurance review; TAI is in receipt of several letters from EPA's detailing the review. TAI responded to EPA's review comments on July 6, 2015.

As detailed in the EPA-approved technical memorandum describing how the backscatter electron microscopy (BSEM) will be performed on archived Phase 2 Study, samples were shipped from ALS to RJ Lee Group in December 2014 and the lab began analyses in

January 2015. On February 24, 2015 TAI submitted to EPA, RJ Lee Group's Example Report for UCR Phase 2 Sediments BSEM analysis. This report was provided as an example to illustrate how the BSEM data will be presented, and was not an initial data delivery. On April 9, 2015 EPA provided comments to TAI on the example report for use in completing the draft report which will be included in the Phase 2 Sediment Study Draft Data Summary and Data Gap Report. BSEM analysis on all samples was completed in May 2015. TAI responded to EPA's comments on the draft example report on July 17, 2015.

TAI met with EPA on August 12, 2015 to discuss preliminary bioassay results from the Phase 2 Sediment Study and to discuss possible schedule for delivery of the draft data summary report (DSR). It was agreed that TAI will deliver the draft DSR to EPA by December 18, 2015.

Chemicals of Potential Concern (COPC) Refinement Document – as required in “Resolution A” in the January 18, 2013 letter from EPA which detailed the resolution to the TAI's dispute of EPA's comments on the Phase 2 Sediment Study quality assurance project plan, TAI submitted the Draft COPC Refinement Document to EPA on March 31, 2015. At the time of writing TAI is in receipt of EPA comments dated October 7, 2015 and is currently reviewing and evaluating the comments.

Bossburg Flat Beach Refined Sediment and Soil Study – Field sampling activities were completed on May 8, 2015. Sediment and soil sample chemistry analyses and data validation is complete and validated data have been made available for EPA's quality assurance review. TAI is in receipt of EPA letters documenting their quality assurance review for Parts 1 through 5 of the validated data and TAI responded to EPA's review comments on October 5, 2015. The Bossburg Study draft cultural resources monitoring report was submitted to EPA on September 24, 2015 and the draft data summary report was submitted to EPA on October 7, 2015.

Soil Study – Field sampling activities were completed on October 23, 2014. Validated data were submitted to EPA for quality assurance review; TAI responded to EPA's review comments on March 16, 2015. The draft Soil Study DSR was submitted to EPA on April 27, 2015 and the Final Cultural Resources Monitoring Report was submitted to EPA on June 9, 2015. TAI received EPA's July 13, 2015 letter providing comments on the April 2015 draft DSR and provided a revised electronic version of the DSR and response to comments to EPA on August 12, 2015. TAI received final review comments (provided via email from L. Buelow to K. McCaig on September 3, 2015), revised the report, and received a final approval letter from EPA on September 22, 2015. The final report will be delivered to EPA and members of the RI/FS distribution list by October 22, 2015.

Benthic Macroinvertebrate Tissue Study – TAI is in receipt of EPA's August 19, 2013 Expected Level of Effort For Sampling Benthic Macroinvertebrate Tissue, Upper Columbia River paper and submitted the Draft Quality Assurance Project Plan for the Macroinvertebrate Tissue Study to EPA on November 18, 2014 for review and comment.

Human Health – TAI received from EPA, the draft data analysis report (DAR) for the Recreational Use Survey on January 17, 2014 and submitted comments to EPA on June 11, 2014.

White Sturgeon Sediment Toxicity Study – In January 2014 TAI submitted to EPA, the draft final version of the Assessment of Sediment Toxicity to White Sturgeon DSR and response to EPA's comments. On August 10, 2015 TAI met with EPA to discuss the draft final DSR and TAI's response to comments and clarify further changes needed in order to submit a revised DSR. It was agreed that TAI will submit a revised DSR and revised response to comments on November 20, 2015.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.